



US009409136B2

(12) **United States Patent**  
**Vimalchand et al.**

(10) **Patent No.:** **US 9,409,136 B2**  
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **HIGH PRESSURE FEEDER AND METHOD OF OPERATING TO FEED GRANULAR OR FINE MATERIALS**

*F23K 3/02* (2013.01); *C10J 2200/09* (2013.01);  
*C10J 2200/156* (2013.01); *C10J 2300/093*  
(2013.01)

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(58) **Field of Classification Search**  
CPC combination set(s) only.  
See application file for complete search history.

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(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 147 days.

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(65) **Prior Publication Data**

US 2015/0044014 A1 Feb. 12, 2015

**Related U.S. Application Data**

(62) Division of application No. 12/970,006, filed on Dec.  
16, 2010, now Pat. No. 8,852,303.

(60) Provisional application No. 61/288,534, filed on Dec.  
21, 2009.

(51) **Int. Cl.**

<b>C01B 3/36</b>	(2006.01)
<b>B01J 3/02</b>	(2006.01)
<b>C10J 3/30</b>	(2006.01)
<b>C10J 3/50</b>	(2006.01)
<b>C10J 3/72</b>	(2006.01)
<b>F23K 3/02</b>	(2006.01)

(52) **U.S. Cl.**

CPC .... **B01J 3/02** (2013.01); **C10J 3/30** (2013.01);  
**C10J 3/50** (2013.01); **C10J 3/723** (2013.01);

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**ABSTRACT**

A coal feed system to feed pulverized low rank coals contain-  
ing up to 25 wt % moisture to gasifiers operating up to 1000  
psig pressure is described. The system includes gas distribu-  
tor and collector gas permeable pipes imbedded in the lock  
vessel. Different methods of operation of the feed system are  
disclosed to minimize feed problems associated with bridg-  
ing and packing of the pulverized coal. The method of main-  
taining the feed system and feeder device exit pressures using  
gas addition or extraction with the pressure control device is  
also described.

**9 Claims, 7 Drawing Sheets**

